

## ABSTRACT

An apparatus and method suitable for use in a reverse osmosis system has a process chamber having a feed inlet, a low pressure outlet and a high pressure outlet. A feed pump is used to increase the  
5 feed pressure to process the process chamber. A common shaft having rotatably coupled thereto a booster pump fluidically coupled between the feed pump and the feed inlet and an energy recovery turbine fluidically coupled to the high pressure  
10 concentrate outlet. The energy recovery turbine drives the booster pump.

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